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## The Atlantic Crossing: Foundations of the Industrial Revolution

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# The Atlantic Crossing: Foundations of the Industrial Revolution

Jacob Becker\*

The colonial system that arose from the discovery of the New World created new pathways of interaction among nations. These interactions led to the expansion of both commerce and ideas. Although today we search for the answers to many historical questions within the general frame of the nation state, the colonial era of the fifteenth through the eighteenth century was shaped through a much wider scope. In his book *Sweetness and Power*, Sidney Mintz argues that the people of the British colony of Barbados focused on Atlantic issues such as the slave trade in Africa and the price of sugar in Europe. Events such as the American Revolution affected the price of sugar in Europe and lowered its demand, while at the same time dramatically decreased the influx of fresh slaves from Africa as the British navy was needed to wage war. Both David Eltis and Frank Lambert make distinct points in their books of the importance of both the slave trade and the American navy to the New World. Rather than viewing the colonization of the New World as individual nations claiming a stake in separate spheres of North and South America, historians are now viewing it as a singular process.

By examining the influences of nations upon each other during the colonial era, it is possible to see the emergence of an Atlantic world, a world where each competing nation was still dependent on the success of others in order to keep trade flowing fluently throughout the Atlantic. These deeper interactions, not seen within the nation-state perspective, shaped what historians describe as the Atlantic world. Bruce Laurie, in his book *Artisans into Workers*, argues that the colonization of the New World created new prospects and opportunities for migrants while allowing their home nations to reap the benefits. In *Black Rice*, Judith Carney shows how slaves in North America were instrumental in building a slave culture in the antebellum South that integrated numerous African customs. Through the works of these five authors, Judith Carney, Bruce Laurie, Sidney Mintz, Frank Lambert, and David Eltis, we begin to see a clearer picture of the colonial Atlantic world which would be foundational to catapulting America towards the Industrial Revolution.

Colonization brought mass production to European economy. The plantation system of the Caribbean and southern parts of America set a blueprint for the factories of the Industrial Revolution by showing the necessity of organized labor, specialization of labor, and its cheap use with as little management as possible.<sup>259</sup> With such large amounts of work being

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accomplished in short periods of time, it was necessary for plantation owners to make sure that tasks were completed efficiently. By organizing labor, plantation owners ensured their fields were worked at optimum efficiency. On the rice plantations of South Carolina, for instance, labor was organized by what was called “labor tasks” and by individual knowledge of cultivation. By using a labor system that gave only a certain amount of work to complete in a given day, slaves were allotted larger amounts of their own time. The slaves of South Carolina thus had the time to tend private fields, develop families, and rebuild the culture that had been lost during their enslavement.

Factory workers of England and America were forced into similar patterns of work upon entering factories. The little time that was offered to them outside of the factory was spent with their families attempting to gather enough food to survive another day. Workers of modern factories were assigned specific tasks to complete during a certain shift, similar to slaves on the rice plantation who were assigned a certain amount of labor to complete in a day. This connection shows a clear distinction of hourly work that would become the focal point of many worker strikes during the Industrial Revolution. The Philadelphia General Strike of 1835 would be led by workers demanding a shorter work day. These miners marched through the streets pronouncing they would be slaves no longer and demanded that their employer institute a ten-hour work day. The wage workers of the nineteenth century would become the slaves of industry as factory owners used a form of the task labor system to organize their workers for optimum efficiency.<sup>260</sup>

The specialization of labor within these work systems would aid in even further optimizing output. For women working on rice plantations in the southern colonies of North America whose job was to sow the rice, the importance of specialized labor becomes clear. Cultivating among African women had begun before their enslavement in America.<sup>261</sup> Judith Carney writes: “Wherever rice is grown in West Africa, women are involved. They display sophisticated knowledge in recognizing soil fertility by plant indicators, which reveal, for instance, soil impoverishment or recovery.”<sup>262</sup> The knowledge of rice cultivation in African culture was passed down among women and carried to the American plantations. This made slave women highly prized as skilled workers on rice plantations, and persuaded plantation owners to place the bulk of this specialized labor in their hands.

The specialization of labor would be a defining characteristic of the Industrial Revolution. Bruce Laurie observes this phenomenon with the young women of Lowell, Massachusetts. As women begin to look for work in factories,

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one of my most influential professors in my study of American history. Lastly, I would to thank Kelly Johnson for the numerous times she has read and edited this article.

<sup>259</sup> Judith Carney, *Black Rice, The African Origins of Rice Cultivation in the Americas* (Massachusetts: Harvard University Press, 2001), 99.

<sup>260</sup> Bruce Laurie, *Artisans into Workers: Labor in Nineteenth Century America* (New York: Hill & Wang, 1989) 85-6.

<sup>261</sup> Carney, *Black Rice*, 112.

<sup>262</sup> *Ibid.*, 107.

most were placed in textile mills. These women were chosen for several reasons including shortage of labor. Moreover, most of these workers came with previous knowledge of textiles due to their training as girls in the practice of weaving and making threads, which was seen as a female occupation.<sup>263</sup> Separation of labor along these lines was done for the same reason it was in African culture. Women in Europe knew much more about textiles and the craft of spinning than most men, just as African women were much more knowledgeable in the cultivation of rice than the men. Artisan production of textiles existed in the American colonies, but women of every household needed to know this craft to be a productive member of the household. This specialized labor allowed for women to complete tasks that would allow for the highest amount of productivity.

Production of rice created “factories in the field.”<sup>264</sup> The specialization of labor, combined with organizational methods allowed for the plantations to increase yields. “From the first to the second half of the eighteenth century, the per capita output of milled rice produced by slaves climbed from 2,250 pounds to an average that reached between 3,000 and 3,600 pounds.”<sup>265</sup> This evidence supports the fact that specialized labor, as that seen on the rice plantation, were influential in increasing production during the early stages of the American Industrial Revolution. Many factory owners would have seen the benefits of using the plantation system as a blueprint for factory work. By organizing and specializing labor, factory owners increased their productivity and yielded higher profits. Laurie follows this increase in profits, productivity, and labor through the colonial era and into the nineteenth century. His analysis shows how the rise of specialized labor within factory systems made obsolete the artisans of the time and led to the creation of craft unions that warped into the major trade unions of the 1800s. Laurie traces this transition through the nineteenth century, examining the rise of labor unions such as the Knights of Labor. His breakdown of the transition from artisan to worker shows the substantial changes made in the ideas of labor and its role in society.

Throughout the Atlantic world, nations experienced internal political struggles and the strain of overseas colonies. Some of these colonies would become rebellious and break free from their oppressors. Governmental reformation in the Atlantic world was a central cause of the rapid industrialization in both Europe and America. Industrialized nations needed to cope with frequently changing societies, vast amounts of organized labor, and an expanding international market. This meant that governments had to be ready to cope with these changes as the modern era dawned; colonization prepared them for this task.

Great Britain had several colonies throughout the Atlantic world, including Jamaica, Barbados, and the colonies on the North American continent. Each of these colonies allowed England to prepare for industrialization in different ways, including internal political change and social and economic reform. On the island of Barbados, sugar was the staple crop of the island. Sidney Mintz places a great amount of emphasis on this tiny island when analyzing the

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<sup>263</sup> Laurie, *Artisans into Workers*, 31.

<sup>264</sup> Carney, *Black Rice*, 122.

<sup>265</sup> *Ibid.*, 123.

consumption of sugar and its effects on Great Britain. "From humble beginnings on the island of Barbados in the 1640s, the British sugar industry expanded with astounding rapidity, engulfing first that island and, soon after Jamaica."<sup>266</sup> Mintz analyzes the effects of the sugar trade in Barbados and the Caribbean on Europe and the rest of the Atlantic nations. The government revolved around ensuring that slaves were constantly flowing into the colony, while keeping the sugar trade in the Atlantic moving in a profitable direction. Sugar could flow freely from the Caribbean to Europe, just as freely as slaves from Africa back to Barbados. This made it an extremely lucrative business for entrepreneur colonists who took advantage of the ability to cultivate sugar cane in the tropical islands of the Caribbean. As a result of the increased production of sugar, it became not only a luxury, but a necessity. As Mintz states in his book *Sweetness and Power*, "The English people came to view sugar as essential; supplying them with it became as much a political as an economical obligation."<sup>267</sup> Great Britain was forced into ensuring the sugar plantations kept running, not only for economic benefits but also for the overall stability of the nation. Mintz notes:

As the *production* of sugar became significant economically, so that it could affect political and military decisions, its *consumption* by the powerful came to matter less: at the same time, the production of sugar acquired that importance precisely because the masses of English people were not steadily consuming more of it, and desiring more of it than they could afford.<sup>268</sup>

The English became more dependent on sugar as the trade grew. As prices dropped and quantities of sugar increased, many of the working class began to consume sugar on a regular basis. Sugar allowed the factory worker to consume smaller amounts of food quickly with little preparation time. Wage laborers could spend less time eating and more time working. Mintz contends that the British sugar trade became so lucrative that surplus crop production allowed for the crop to be bought by the lower class of Great Britain. "Cheaper sugar came at a time when its increased consumption was guaranteed not by the sugar habit itself, but by the factory world and machine rhythms which were the background for its use."<sup>269</sup> Sugar, Mintz argues, became a driving factor in the workers of the industrial age in Great Britain, by providing a cheap and efficient form of quick calorie intake that kept factory work moving.

On the other side of the Atlantic, the newly formed American nation was forced to evolve a system that could be competitive with its sister nations in Europe. As trade expanded into the Mediterranean, the pirates of the Barbary

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<sup>266</sup> Sidney Mintz, *Sweetness and Power: The Place of Sugar in Modern History* (New York: Viking Penguin, 1985) 39

<sup>267</sup> *Ibid.*, 157.

<sup>268</sup> *Ibid.*, 45.

<sup>269</sup> *Ibid.*, 166.

Coast were a constant threat to American trade. Historian Frank Lambert argues that, “With no navy of their own, Americans could only hope that the French and Spanish coalition would subdue the Barbary pirates and clear the Mediterranean for legitimate trade.”<sup>270</sup> As American merchants were continuously preyed upon by Barbary pirates, the American government eventually took decisive action in defending its stake in the Mediterranean. “In deciding to build a navy, American lawmakers reasoned that only the threat of attacks by overwhelming power would cause the Algiers to stop their raiding, negotiate a peace treaty, and release U.S. prisoners.”<sup>271</sup> The creation of a naval force by the American government was meant to ensure the safe passage of U.S. merchant vessels across the Atlantic to trade with Europe.

Lambert, in his book *The Barbary Wars*, argues that this quasi-war with the pirates of the Barbary Coast would force the United States to build a navy to defend its interests, not only in the Mediterranean, but thought out the Atlantic. The war with the Barbary pirates allowed the United States to claim naval independence in the Atlantic World, while at the same time show their intolerance to piracy against American merchant vessels. It is this sort of political action that moved the American nation on a path to industrialization. As new markets began to open up across the sea, an increase in production was imminent. Lambert writes, “With the defeat of the Barbary powers, American merchantmen could sail the Mediterranean without wondering if a corsair would pounce on them from hidden coves.”<sup>272</sup> It was a new form of independence for the newly formed nation. Lambert argues that it was this sort of aggression by America that made it possible for trade to continue as fluidly as it had during the colonial era. He further notes: “With rapidly growing population and its expanding commerce, it represented an attractive trading partner, especially for the British.”<sup>273</sup> It was the combination of these two nations, working together through their political peace that would lead the world towards industrialization.<sup>274</sup>

America’s rapidly expanding cotton production provided valuable raw materials for Britain’s textile mills. And America and Great Britain, under their new trade agreements, would form “dependable trade networks,” which were dependent on each other to keep their national economies moving forward. Plantations were dependent on selling cotton to English textile mills, just as England was dependable on the southern states to provide it. It was a circular pattern. Cotton was grown on plantations, sold to textile mills to be made into fabric, and then resold to plantations for slaves to wear. This was a trade network of dependability. With greater economic independence achieved following the Barbary Wars, along with the creation of a standing navy, the United States would lead the Atlantic world into the Industrial Revolution through expansion of political policies, internal governmental changes, and dependable trade networks.

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<sup>270</sup> Frank Lambert, *The Barbary Wars: American Independence in the Atlantic World* (New York: Hill & Wang, 2005) 29.

<sup>271</sup> *Ibid.*, 79.

<sup>272</sup> *Ibid.*, 201.

<sup>273</sup> *Ibid.*

<sup>274</sup> *Ibid.*

Lambert argues that the Barbary Wars in the Mediterranean Sea allowed the United States to build a navy that not only protected them economically, but prepared them for war with the nation that would defeat Napoleon: Great Britain.

With the political environment changing and the blueprint for the modern factory having great success, the economics of the Atlantic world needed to be open and globally focused in order for the Industrial Revolution to begin. The international market created by the colonial system would allow for goods to be traded freely between nations in the Atlantic world. This open market would allow needed goods from such areas as the Caribbean and the United States to be sent back to Europe where they were turned from raw material to goods. The best example of this open market is the triangle trade of the Atlantic Ocean. The triangle trade route of the Atlantic brought sugar from the Caribbean islands up along the Atlantic coast and sold to the New England colonies in America. It was then distilled into rum and shipped across the Atlantic to Africa, where it was traded for slaves just off the African coast with tribe leaders. The building of the trans-Atlantic slave trade is one of the main focuses of David Eltis' book, *The Rise of African Slavery in America*. He writes:

The European ability to create transoceanic trading networks and establish colonies of occupation and settlement hinged on first, the rather prosaic issue of shipping technology and second – give the cultural constraints on enslaving Europeans – the availability of slaves from some non-European source.<sup>275</sup>

Eltis devotes an entire chapter of his book to analyzing the movement of Africans to the New World via this slave trade and the impact that it has on American economy, American culture, and the African slaves themselves. He notes

The first slaves from the English Americas to enter the record sailed from Boston in 1644, and while there were several others from New England in the next decade and a half, the English American stake in the industry really began to grow after 1680 when a Barbados merchant discovered that Caribbean rum sold much better than English brandy on the African coast.<sup>276</sup>

Eltis' analysis of the African slave trade gives great insight into how the colonies of the New World became dependent on its survival. The creation of new markets and trade systems allowed for growth all over the Atlantic. He writes, "In the long run, as both the Dutch and the Spanish discovered in different ways, the

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<sup>275</sup> David Eltis, *Europeans and the Rise of African Slavery in America* (New York: Cambridge University Press, 2000) 114.

<sup>276</sup> *Ibid.*, 127.

sustenance and strengthening of links across the Atlantic and the empires these made possible hinged not only on European settlement but also on production for export within those settlements.”<sup>277</sup> The New World colonies were only beneficial to their patron nation if they were producing some form of commodity. On most Caribbean islands, as stated earlier, this was sugar. The point Eltis is making is that without the Atlantic slave trade, the likelihood of these nations having substantial manpower to carry out the cultivation of these staple crops would not have been possible. The analysis of the Atlantic slave trade by David Eltis provides a unique picture of the practice of bondage and its affect on the Atlantic world.

The African slave trade was not the only source of the changing economy in the New World. The sugar plantations of the Caribbean offered much more than slaves and rum back to the economy of Europe. As a crop, sugar was highly profitable back in Europe and England. Sugar was a good of privilege among the nobility; however, it began to be used greatly amongst the labor class as production rose. Mintz argues:

The meaning that sugar attained in the imperial economy was a wholly different matter from what it eventually meant in the lives of the English people, but the availability and price of sugar were the direct consequences of imperial policies that took shape partly in terms of what the market was, and more and more in terms of what it might become.<sup>278</sup>

The economic market was becoming more domestically oriented for the Caribbean. The demand for sugar rose greatly as the cost began to drop, while at the same time the British Empire consolidated production of the crop abroad. The selling of sugar gave Britain a sweet taste of the global market that could bring great economic prosperity. By building vast sugar empires on the islands of Barbados and Jamaica, British subjects were kept content with indulgence in a once expensive luxury. At the same time the networks of trading via sugar production spurred the British economy to prepare for the beginning of mechanization and the Industrial Revolution. Indeed commerce was the catalyst of industrial growth. As trade increased between such areas as the Caribbean and England, the whole of the British Empire was sweetened with economic growth, which in turn stimulated new markets abroad for British goods.

Economies had been static at the beginning of colonization, due to the fact that nation states had no market of trade and focused mostly on domestic issues. Much of the population was unchanging and saw little growth prior to colonization. Mintz argues that demographic change came to fruition through colonization.<sup>279</sup> As colonies began to grow in size and population, they were constantly focused in becoming more involved in the Atlantic markets. It was the

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<sup>277</sup> *Ibid.*, 194.

<sup>278</sup> Mintz, *Sweetness and Power*, 156.

<sup>279</sup> *Ibid.*, 163.



principle of the colony to provide an economic market for the patron nation. In areas such as the North American continent, colonists were forced to become part of the markets that Great Britain was establishing. This created economic success in America. At the same time, in Barbados, colonists were forced to create a system that would be beneficial to their becoming part of the market that satisfied Great Britain. The rise of the plantation system was a direct result of the expanding role of colonists to be producers for the expanding Atlantic economy. Britain would continue the facilitation of the new plantation system by providing colonists with provisional crops, clothing, luxuries, and a constant flow of fresh slaves. By being placed in a situation that focused all of their labor on producing these cash crop commodities, colonists of the New World created a market for the economy of Europe.

As the plantation system grew throughout America and the Caribbean, mass production began. Specialized areas began to produce and cultivate vast amounts of goods such as sugar, cotton, rice, and other cash crops. The combination of specialized areas of productivity and mass production allowed for markets to grow, rather than remain stable and stagnant. Market growth thus was a product of the population growth of the colonial Atlantic World combined with the beginnings of mass production. The increased populations of the colonies allowed for the economies of Europe to grow as the demand for cash crops increased. Mass production of goods increased Atlantic markets by creating high demands for goods even if prices dropped. Mintz's view of sugar in the Atlantic world shows the deep effects of the substance on the people of Britain. He writes:

The various uses of sugar eventually acquired many local, particular, and distinctive meanings, and only exacting regional research will substantiate this diversification on local and regional levels – funeral cakes and Christmas pies, puddings and candies, custards and all the rest.<sup>280</sup>

Mintz's *Sweetness and Power* shows the affects of sugar on the people of Britain from production, to consumption, to power. Sugar was a driving factor in creating a British society that was far more adaptable, self sustainable, and ready for an Industrial Revolution.

The colonial era brought unique changes to the Atlantic world that would allow for great social strides. As the world moved ever closer to the modern era, the people and places of the colonial world shaped the future of their societies. The Industrial Revolution would be a direct creation of this time, when people, ideas, and cultures were assimilated into one another to form the Atlantic world. Without the colonization of the New World, the nations of Europe and the Americas would never have advanced their economies and industries towards the modern era. The colonial era was the main catalyst in the Industrial Revolution, providing a blueprint for factories through the plantation system, forcing governmental changes within nations, and expanding international markets

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<sup>280</sup> *Ibid.*, 172.

through dependable trade networks and population growth. It was the culmination of these factors that pushed the Atlantic World in a progressive direction. As Laurie demonstrates in Lowell, Massachusetts in his book *Artisans into Workers* Carney, in *Black Rice*, shows how plantation owners used separation of labor along gender lines to increase productivity. Mintz, in his descriptions of sugar and its affects on both the British economy and its people, paints a vivid picture of how a plant can shape the future of a nation. Eltis depicts the trans-Atlantic slave trade as another defining feature of the Atlantic world and illustrates how the use of this coerced labor force was a necessity to the New World. As nations such as Britain and America began coping with the international market, the progress they made began to show domestically in ways never before seen. The newly formed United States of America fought to find a new place in the Atlantic economy, as Lambert shows in his book on the Barbary Wars. It was the dawn of the modern era and the Industrial Revolution. As people of the colonial system began viewing the Atlantic world as a community, trade became more fluid. As shown through the research of these authors, the rise of industrialization was a direct consequence of the colonial era. By creating colonies around the Atlantic, Europe was providing itself with the resources it needed to advance itself domestically and economically towards the Industrial Revolution.

**Jacob Becker** is a senior at the University of Iowa, majoring in history and secondary education with a minor in political science. He has largely focused on American and Medieval history during his studies at Iowa and looks forward to passing that knowledge onto his students as a future high school teacher. In addition, Jacob is a member of the University of Iowa Men's Gymnastics Team and is one of the team representatives on the Iowa Student Athlete Advisory Committee.